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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID W. BURNS

Appeal 2008-3638
Application 10/710,854
Technology Center 2600

Decided: December 16, 2008

Before JOSEPH F. RUGGIERO, ROBERT E. NAPPI, and CARLA M.
KRIVAK, *Administrative Patent Judges*.

RUGGIERO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from the Final Rejection of claims 1-13, 15-23, 25-32, and 34-40. Claims 14, 24, and 33 have been indicated by the Examiner (Ans. 2) to be allowable. An oral hearing on this

appeal was conducted on November 18, 2008. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellant's claimed invention relates to a system and method for determining the stylus position of a stylus when the stylus tip of a stylus is positioned in a stylus region. Images of the stylus tip from first and second directions are generated and the stylus position is determined based on the generated images (Spec. ¶¶ [0034] and [0035]).

Claim 1 is illustrative of the invention and reads as follows:

1. A system for determining a stylus position of a stylus, the system comprising:
 - a single telemetric imager having an optical imaging array;
 - a light source positioned near the telemetric imager to illuminate a stylus tip; and
 - a controller electrically coupled to the telemetric imager; wherein the controller determines the stylus position based on a generated image of the stylus tip from a first direction and a generated image of the stylus tip from a second direction when the stylus tip is in a stylus entry region.

The Examiner relies on the following prior art references to show unpatentability:

Brown	US 4,430,526	Feb. 7, 1984
Griffin	US 4,553,842	Nov. 19, 1985
Inabata	US 5,245,175	Sep. 14, 1993
Yoshida	US 5,401,917	Mar. 28, 1995
Segen	US 5,484,966	Jan. 16, 1996
McDermott	US 5,635,683	Jun. 3, 1997
Ogawa	US 6,100,538	Aug. 8, 2000

THE EXAMINER'S REJECTIONS

Claims 31, 32, 38, and 39 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Omura.

Claims 1, 2, 4, 6, 11-13, 15, 16, 18, 20, 21, 23, 26, 27, 29, 30, 35, and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Omura in view of Ogawa.

Claim 37 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Omura in view of Tsuji.

Claims 3, 8-10, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Omura in view of Ogawa and Tsuji.

Claim 34 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Omura in view of Brown.

Claims 5 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Omura in view of Ogawa and Brown.

Claims 7 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Omura in view of Ogawa and Inabata.

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Omura in view of Ogawa and McDermott.

Claim 19 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Omura in view of Ogawa and Yoshida.

Claim 40 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Segen in view of Griffin.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Briefs and Answer for the respective details. Only those arguments actually made by Appellant have been considered in this decision. Arguments which Appellant could have made but chose not to make in the Briefs have not been considered and are deemed to be waived [see 37 C.F.R. § 41.37(c)(1)(vii)].

ISSUES

(i) Under 35 U.S.C. § 102(b), does Omura have a disclosure which anticipates the invention set forth in claims 31, 32, 38, and 39? The pivotal issue before us in making this determination is whether Appellant has shown the Examiner erred in determining that Omura discloses a light source which illuminates the tip of a stylus and that Omura provides a disclosure of generating images from the stylus tip to detect stylus position.

(ii) Under 35 U.S.C. § 103(a), with respect to appealed claims 1-13, 15-23, 25-30, and 34-37, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Omura with Ogawa and other various secondary references to render the claimed invention unpatentable? With respect to appealed claim 40, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Segen and Griffin to render the claimed invention unpatentable? A pivotal issue before us is whether Appellant has demonstrated the Examiner erred in determining the obviousness of modifying Omura or Segen by adding the external source stylus illuminating features of, respectively, Ogawa and Griffin.

FINDINGS OF FACT (FF)

The relevant facts include the following:

1. Omura discloses (Figure 8 and col. 14, ll. 45-52) a system which determines the position of stylus 65 in a stylus entry region 66 by generating images of a stylus tip in first and second directions.
2. Omura further discloses (col. 14, ll. 55-58) the stylus tip is illuminated by an infrared irradiating LED light source 64 located in the tip of the stylus.
3. Omura also discloses (col. 15, l. 59-col. 16, l. 23) a peak detection technique is used to detect the peaks of the images 72a, 72b that appear in image detection CCD cameras 63a, 63b, which correspond to the position of the tip 64 of the stylus 65.
4. Ogawa discloses alternative embodiments in which a stylus is illuminated by either including an illuminating source in the stylus tip or by including an external illuminating source located near a telemetric imager. (Ogawa, Figures 2 and 22 and col. 16, ll. 6-27).
5. Brown discloses (Figures 2 and 3) a stylus 30 with an erasing mode end 31 and a writing mode end 32.
6. Segen discloses (Figure 1 and col. 5, ll. 5-35) a system for determining the position of a stylus 108 using a single telemetric imager 110 with a single optical imaging array.
7. Griffin discloses (Figures 2, 4, and 5; col. 2, ll. 60-62) an optical position indicating device in which a light source 30 is positioned near a telemetric imager 42.

PRINCIPLES OF LAW

I. ANTICIPATION

It is axiomatic that anticipation of a claim under § 102 can be found if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 (Fed. Cir. 1992). Anticipation of a patent claim requires a finding that the claim at issue “reads on” a prior art reference. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346 (Fed Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.”) (internal citations omitted).

2. OBVIOUSNESS

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). “[T]he examiner bears

the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Furthermore, ““there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007)(quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

ANALYSIS

35 U.S.C. § 102(b) REJECTION

With respect to representative appealed independent claim 31, the Examiner indicates (Ans. 3-4) how the various limitations are read on the disclosure of Omura.¹ In particular, the Examiner points to the illustration in Figure 8 of Omura, as well as the accompanying description at column 14, line 45 through column 16, line 23 of Omura.

Appellant’s arguments in response assert that the Examiner has not shown how each of the claimed features is present in the disclosure of Omura so as to establish a case of anticipation. Appellant initially contends that the Examiner erred in interpreting the disclosure of Omura as describing a stylus which is illuminated with a light source. According to Appellant

¹ Appellant argues claims 31, 32, 38, and 39 together as a group. *See* App. Br. 11. Accordingly, we select claim 31 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

(App. Br. 13; Reply Br. 3-4), in contrast to the claimed invention in which a stylus is illuminated by an external light source, Omura has a powered LED as a light source in the tip of the stylus.

Appellant further argues that the Examiner erred in interpreting Omura as disclosing the generation of images of a stylus with a telemetric imager. In Appellant's view (App. Br. 15-23; Reply Br. 5-9), Omura uses a peak-detection light interruption approach based on light interruption or light emission in a narrow planar region over a surface which differs from Appellant's three-dimensional coordinate image determination which, *inter alia*, enables the detection of a stylus tip "hovering" over a surface.

After reviewing the language of independent claim 31 in light of Appellant's arguments, however, we find that such arguments are not commensurate with the scope of the claim. It is axiomatic that, in proceedings before the PTO, claims in an application are to be given their broadest reasonable interpretation consistent with the specification, and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Snead*, 710 F.2d 1544, 1548 (Fed. Cir. 1983). Moreover, limitations are not to be read into the claims from the specification. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989).

While we do not necessarily disagree with Appellant that the stylus position detection system of Omura performs differently than the system disclosed by Appellant, it is the *claimed* invention that is before us on appeal. In our view, to whatever extent Appellant is relying on the specific details of the disclosed three-dimensional coordinate image detection feature, such a feature is not set forth in the language of the appealed claims. In our opinion, Appellant's arguments improperly attempt to narrow the

scope of the claim by implicitly adding disclosed limitations which have no basis in the claim. *See In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997).

With the above discussion in mind, we are of the view that the Examiner has reasonably interpreted the disclosure of Omura as describing the stylus tip illumination and the stylus tip image generation features of claim 31. We initially agree with the Examiner (Ans. 12) that the language of appealed claim 31 does not set forth the location of the light source which illuminates the stylus tip, nor is there any language which precludes the illuminating light source from being located in the stylus tip itself as in Omura.

We further agree with the Examiner (Ans. 12-13) that there is no language in appealed claim 31 directed to the stylus image generation feature, which distinguishes over the peak detection image generation feature disclosed by Omura. We agree with the Examiner's finding that, as illustrated in Omura's Figures 8 and 9, and described at column 15, lines 55-58 and column 16, lines 1-4, Omura discloses the imager 62 determines the position of stylus 65 by detecting the peaks that appear in the image signals 72a, 72b which correspond to the position of the tip 64 of the stylus 65.

In view of the above discussion, since Appellant has not shown that the Examiner erred in concluding that all of the claimed limitations are present in the disclosure of Omura, the Examiner's 35 U.S.C. § 102(b) rejection of independent claim 31, as well as dependent claims 32, 38, and 39 not separately argued by Appellant, is sustained.

35 U.S.C. § 103(a) REJECTIONS

- I. The rejection of claims 1, 2, 4, 6, 11-13, 15, 16, 18, 20, 21, 23, 26, 27, 29, 30, 35, and 36 based on the combination of Omura and Ogawa.*

This rejection is also sustained. We find no error in the Examiner's line of reasoning (Ans. 4, 5, and 17) establishing a basis for modifying Omura's disclosure of illuminating a stylus with a light emitting device in the stylus tip by, instead, positioning a light source near the telemetric imager to illuminate the stylus tip as taught by Ogawa. As explained by the Examiner, Ogawa provides alternative arrangements for illuminating the stylus, either by including illumination in the stylus tip (Figure 2), or by illuminating the stylus tip from an externally located light source near the imager (Figure 22). Appellant's arguments (Reply Br. 13-14) to the contrary notwithstanding, we find that the context of the entirety of the paragraph at column 16, lines 6-27 of Ogawa supports the Examiner's position that the use of an externally located stylus illumination source, such as taught by Ogawa, would have served as an obvious enhancement to the system of Omura.

- II. The rejection of dependent claims 5 and 25 based on the combination of Omura, Ogawa, and Brown.*

We also sustain the Examiner's rejection of dependent claims 5 and 25 in which the Examiner has applied the Brown reference to the combination of Omura and Ogawa to address the erasing mode feature of these claims. Appellant's arguments (App. Br. 31; Reply Br. 15-16) in response focus on the mercury switch structure of the stylus of Brown and

contend that such structure would be inappropriate for use as an imaging target on a stylus.

We do not find Appellant's argument to be persuasive since it is apparent to us from the Examiner's stated position (Ans. 8 and 18) that the Examiner is not suggesting the bodily incorporation of the mercury stylus tilt switch of Brown into the system of Omura as modified by Ogawa. Rather, it is Brown's teaching of including writing and erasing modes in a positional stylus that is relied on as a rationale for the proposed combination with Omura and Ogawa. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." *See In re Keller*, 642 F.2d 414, 425 (CCPA 1981) and *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973).²

III. The rejection of claim 40 based on the combination of Segen and Griffin.

This rejection is also sustained. Appellant's arguments (App. Br. 35-36; Reply Br. 17-19) focus on the contention that, in contrast to the 3-D imaging approach of Appellant, Segen uses a one-dimensional image sensor which can detect the position of the stylus only in a thin planar region near a writing surface. In a related argument (*id.*), Appellant directs attention to the fact that both Segen and Griffin (relied upon by the Examiner for a teaching

² Although not specifically mentioned by the Examiner, Ogawa discloses (col. 14, ll. 10-12) the use of color coded imaging targets on a stylus tip to assign various functions such as an erasing function to the stylus.

of an external stylus illuminating source) require the use of mirrors which are not required in Appellant's invention.

We do not find Appellant's arguments to be persuasive since, as with our earlier discussion with respect to the Omura reference, to whatever extent Appellant is relying on the supposed features of a three-dimensional imaging system, such features are not recited in claim 40. Similarly, although Appellant is correct that both Segen and Griffin require the use of mirrors to provide the requisite image detection, the use of mirrors is not precluded by the language of claim 40.

IV. The obviousness rejections of dependent claims 3, 7-10, 17, 19, 22, 28, 34, and, 37 based on separate combinations of Omura with the secondary references to Ogawa, Tsuji, Brown, Inabata, McDermott, and Yoshida.

We also sustain the Examiner's obviousness rejections of claims 3, 7-10, 17, 19, 22, 28, 34, and 37. Appellant (App. Br. 29, 30, 32, and 33; Reply Br. 14-17) has made no separate arguments for patentability of claims 3, 7-10, 17, 19, 22, 28, 34, and 37 but, instead, has relied on arguments with respect to Omura and Ogawa made against the rejection of independent claims 1, 20, and 31, which arguments we found to be unpersuasive as discussed *supra*.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude Appellant has not shown that the Examiner erred in rejecting claims 31, 32, 38, and 39 for anticipation under 35 U.S.C. § 102(b), nor in rejecting claims 1-13, 15-23, 25-30, 34-37, and 40 for obviousness under 35 U.S.C. § 103(a).

DECISION

The Examiner's decision rejecting claims 31, 32, 38, and 39 under 35 U.S.C. § 102(b) and claims 1-13, 15-23, 25-30, 34-37, and 40 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

gvw

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